Power supply unit - QUINT4-PS/1AC/12DC/7.5/PT - 2904607

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Primary-switched power supply unit, QUINT POWER, Push-in connection, DIN rail mounting, input: 1-phase, output: 12 V DC / 7.5 A

Your advantages

- Starting of heavy loads with dynamic boost
- Preventive function monitoring indicates critical operating states before errors occur
- High efficiency and long service life, with low power dissipation and low heating
- Space savings in the control cabinet, thanks to a narrow, slim-line design
- Fast and easy startup, thanks to tool-free Push-in connection technology

Key Commercial Data

Packing unit	1 pc
GTIN	4 055626 255767
GTIN	4055626255767

Technical data

Dimensions

Width	45 mm
Height	106 mm
Depth	90 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (> 60 °C Derating: 2.5 %/K)
Ambient temperature (start-up type tested)	-40 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	≤ 95 % (at 25 °C, non-condensing)
Climatic class	3K3 (in acc. with EN 60721)
Degree of pollution	2

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Ambient conditions

Installation height	≤ 5000 m (> 2000 m, observe derating)

Input data

Input voltage range	100 V AC ... 240 V AC -15 % ... +10 %
	110 V DC ... 250 V DC -20 % ... +40 %
Dielectric strength maximum	300 V AC 60 s
Discharge current to PE	< 0.25 mA (264 V AC, 60 Hz)
Current consumption	1 A (100 V AC)
	0.85 A (120 V AC)
	0.46 A (230 V AC)
	0.44 A (240 V AC)
Nominal power consumption	96.3 VA
Inrush current	typ. 11.4 A (at 25 °C)
Mains buffering time	typ. 48 ms (120 V AC)
	typ. 48 ms (230 V AC)
Input fuse	3.15 A (slow-blow, internal)
Choice of suitable circuit breakers	6 A ... 16 A (Characteristic B, C or comparable)
Type of protection	Transient surge protection
Protective circuit/component	Varistor

Output data

Nominal output voltage	12 V
Setting range of the output voltage (U_{Set})	12 V DC ... 15 V DC (constant capacity)
Nominal output current (I_N)	7.5 A
Dynamic Boost ($I_{Dyn.Boost}$)	12.75 A (≤ 60 °C (5 s))
Connection in parallel	Yes, for redundancy and increased capacity
Connection in series	yes
Feedback resistance	≤ 25 V DC
Output overvoltage protection	≤ 18 V DC
Control deviation	< 0.3 % (Static load change 10 % ... 90 %)
	< 3 % (Dynamic load change 10 % ... 90 %, (10 Hz))
	< 0.1 % (change in input voltage ±10 %)
Residual ripple	< 35 mV_{PP} (with nominal values)
Output power	90 W
Typical response time	300 ms
Maximum power dissipation in no-load condition	< 0.6 W (230 V AC)
	< 0.6 W (120 V AC)
Power loss nominal load max.	< 8.1 W (120 V AC)
	< 7.1 W (230 V AC)

General

Net weight	0.3 kg

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General

Efficiency	typ. 91.5 % (120 V AC)
	typ. 92.5 % (230 V AC)
Insulation voltage input/output	4 kV AC (type test)
	3 kV AC (routine test)
Protection class	II
Degree of protection	IP20
MTBF (IEC 61709, SN 29500)	> 1221000 h (25 °C)
	> 671000 h (40 °C)
	> 248000 h (60 °C)

Connection data, input

Connection method	Push-in connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Stripping length	10 mm

Connection data, output

Connection method	Push-in connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Stripping length	10 mm

Connection data for signaling

Connection method	Push-in connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Stripping length	10 mm

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU

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Standards and Regulations

Noise emission	Additional basic standard EN 61000-6-5 (immunity in power station), IEC/EN 61850-3 (energy supply)
Noise immunity	Immunity according to EN 61000-6-1 (residential), EN 61000-6-2 (industrial), and EN 61000-6-5 (power station equipment zone), IEC/EN 61850-3 (energy supply)
Standards/regulations	EN 61000-4-2
Contact discharge	4 kV (Test Level 2)
Standards/regulations	EN 61000-4-3
Frequency range	80 MHz ... 1 GHz
Test field strength	10 V/m (Test Level 3)
Frequency range	1.4 GHz ... 2 GHz
Test field strength	3 V/m (Test Level 2)
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Voltage	10 V (Test Level 3)
Conducted noise emission	EN 55016 EN 61000-6-4 (Class A)
Standards/regulations	EN 61000-4-8
	EN 61000-4-11
	EN 61000-4-9
	EN 61000-4-12
	EN 61000-4-16
	EN 61000-4-18
Standard - Safety of transformers	EN 61558-2-16
Standard – Safety extra-low voltage	IEC 61010-1 (SELV)
	IEC 61010-2-201 (PELV)
Standard - Safe isolation	IEC 61558-2-16
	IEC 61010-2-201
Standard – Limitation of mains harmonic currents	EN 61000-3-2
UL approvals	UL Listed UL 61010-1
	UL Listed UL 61010-2-201
	ANSI/UL 121201 Class I, Division 2, Groups A, B, C, D (Hazardous Location)
Shock	18 ms, 30g, in each space direction (according to IEC 60068-2-27)
Vibration (operation)	< 15 Hz, ±2.5 mm amplitude; 15 Hz ... 100 Hz: 2.3 g 90 Min. (in accordance with IEC 60068-2-6)
Overvoltage category (EN 61010-1)	II (≤ 5000 m)
Overvoltage category (EN 62477-1)	III (≤ 2000 m)

Drawings

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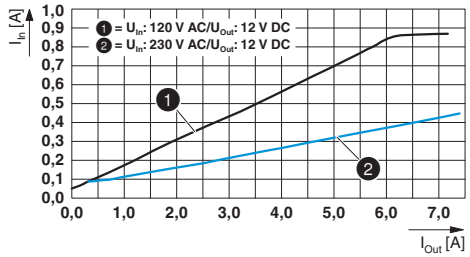
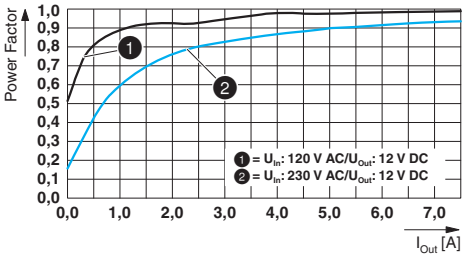
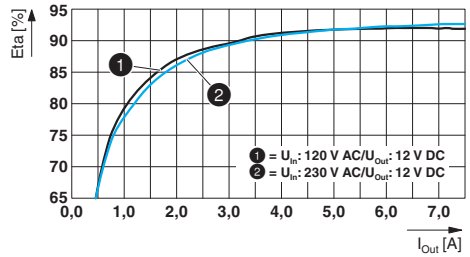
Diagram



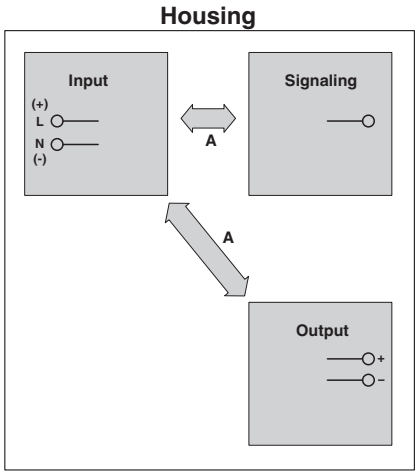
Diagram



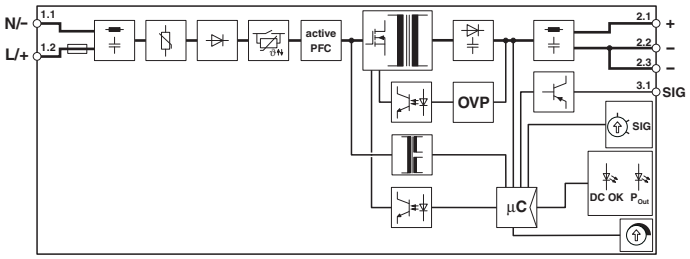
Diagram



Schematic diagram



Block diagram



Approvals

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UL Listed / IECEE CB Scheme / cUL Listed / EAC / DNV GL / cULus Listed

Ex Approvals

UL Listed / cUL Listed / cULus Listed

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Approvals

Approval details

UL Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
IECEE CB Scheme	http://www.iecee.org/	SI-7008
cUL Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
EAC		RU C-DE.A*30.B.01082
DNV GL	http://exchange.dnv.com/tari/	TAA00001SN
cULus Listed		

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